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Gencore version 4.5

Om protein - protein search, using sw model

Run on: January 7, 2002, 15:37:21 ; Search time 154.28 Seconds

Title: US-08-569-749-2

perfect score: 3277

Sequence: I MHKTASQRLFPGPSYQNIKS.....LRRKCPICRGIIKGTVRTFLS 618

Scoring table: BLASTM62

Gapop 10.0 , Gapext 0.5

Searched: 52463 seqs, 74073290 residues

Total number of hits satisfying chosen parameters: 522463

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : A\_Genome\_1101,\*

1: /SIDS2/ecadata/geneseq/geneseq/AAI1980.DAT;\*

2: /SIDS2/ecodata/geneseq/geneseq/AAI1981.DAT;\*

3: /SIDS2/ecodata/geneseq/geneseq/AAI1982.DAT;\*

4: /SIDS2/ecodata/geneseq/geneseq/AAI1983.DAT;\*

5: /SIDS2/ecodata/geneseq/geneseq/AAI1984.DAT;\*

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9: /SIDS2/ecodata/geneseq/geneseq/AAI1988.DAT;\*

10: /SIDS2/ecodata/geneseq/geneseq/AAI1990.DAT;\*

11: /SIDS2/ecodata/geneseq/geneseq/AAI1991.DAT;\*

12: /SIDS2/ecodata/geneseq/geneseq/AAI1992.DAT;\*

13: /SIDS2/ecodata/geneseq/geneseq/AAI1993.DAT;\*

14: /SIDS2/ecodata/geneseq/geneseq/AAI1994.DAT;\*

15: /SIDS2/ecodata/geneseq/geneseq/AAI1995.DAT;\*

16: /SIDS2/ecodata/geneseq/geneseq/AAI1996.DAT;\*

17: /SIDS2/ecodata/geneseq/geneseq/AAI1997.DAT;\*

18: /SIDS2/ecodata/geneseq/geneseq/AAI1998.DAT;\*

19: /SIDS2/ecodata/geneseq/geneseq/AAI1999.DAT;\*

20: /SIDS2/ecodata/geneseq/geneseq/AAI2000.DAT;\*

21: /SIDS2/ecodata/geneseq/geneseq/AAI2001.DAT;\*

22: /SIDS2/ecodata/geneseq/geneseq/AAI2001.DAT;\*

Prod. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Length	DB ID	Description
1	3277	100.0	618	18 AAM19746 Human inhibitor of Human c-IAP1. Hom
2	3277	100.0	618	18 AAM13545 Human cellular inh
3	3277	100.0	618	20 AAX33928 Human apoptosis
4	3247	99.1	618	18 AAM19533 Human HMAP-2 prote
5	3247	99.1	618	19 AAM69396 Murine c-IAP1. Mus
6	2728	83.1	612	18 AAM69219 Murine HMAP-2 prot
7	2724	83.1	612	19 AAM69219 Mouse apoptosis in
8	2654	81.0	591	18 AAM19536 Human inhibitor of Human c-IAP2. Hom
9	2353	71.8	604	18 AAM13546 Human cellular inh
10	2353	71.8	604	18 AAM13546 Human cellular inh
11	2353	71.8	604	20 AAY15203

RESULTS

ID	AAW19746 standard; Protein: 618 AA.
AC	AAW19746;
XX	
DT	16-SEP-1997 (first entry)
XX	
DE	Human inhibitor of apoptosis protein homologue MiHb.
XX	
KW	Inhibitor of apoptosis protein; IAP; mammalian IAP homologue; MiHb; degenerative disease; infectious disease; autoimmune disease; cancer; therapy; diagnosis.
XX	
OS	Homo sapiens.
PH	Location/Qualifiers
Region	46..113
FT	/label=BIR
FT	184..250
FT	/label=BIR
FT	269..337
FT	/label=BIR
Region	569..606
FT	/label=RING_finger
PN	W09723501-A1.
PD	03-JUL-1997.
XX	
PF	20-DEC-1996;
PR	96W0-AU00827.
XX	
PR	22-DEC-1995;
XX	
PR	95AU-0007275.

ALIGNMENTS

human cellular inh  
Human apoptosis in  
Human HMAP-1 prote  
Human inhibitor of  
Murine HMAP-1 prot  
Mouse apoptosis in  
Human AP12-MLT chi  
Anglo-senin conver  
Mouse inhibitor of  
Human apoptosis in  
Human XIAP protein  
Human XIAP protein  
Mouse XIAP protein  
Murine XIAP protein  
Drosophila inhibitor  
Drosophila mutant  
Drosophila mutant  
Drosophila wild-type  
Drosophila mutant  
Drosophila mutant  
Drosophila mutant  
Drosophila mutant  
Drosophila mutant  
Drosophila mutant  
Neuronal apoptosis  
Neuronal apoptosis  
Amino acid sequence  
Gonadotrophic horne  
Human apoptosis in  
Neuronal apoptosis  
Gonadotrophic horne  
Human apoptosis in  
Human NAP protein

PA	(AMRA-) AMRAD OPERATIONS PTY LTD.	Db	601	kpicrgqikgqvrtfis
XX				618 AA.
PT				
PI	voux DV;			
XX				
DR	WPI: 1997-35096632.	RESULT	2	
XX	N-PSDB; AAT72711.	ID	AAW13545	
PT	Isolated protein homologues of viral inhibitors of apoptosis - used to modulate apoptosis for treatment of degenerative, infectious or autoimmune diseases and cancer	XX	AAW13545 standard	
PT		Protein	618 AA.	
PS	Claim 8: Page 51-54; 136pp; English.	AC	AAW13545;	
XX		DT	22-JUL-1997 (first entry)	
CC	Mammalian IAP homologue B (MIHB) (AAW19746) is a human homologue of baculovirus inhibitor of apoptosis protein (IAP). Its amino acid sequence was deduced from a cDNA clone (see also AAT72711) isolated from a human foetal liver cDNA library using primers based on human EST sequences that resembled the BIR repeats of origia pseudosugita polyhedrosis virus IAP. IAP homologues (see also AAW19745 and AAT19747-52) and their derivatives and chemical analogues can be used in methods for modulating apoptosis in animal cells, specifically for treatment, by inhibition, of degenerative and infectious disease or, by promotion, of cancer and autoimmune disease.	XX	Human c-IAP1.	
CC		DE		
CC		KW	IAP; inhibitor; apoptosis; RING finger domain; restinosis; myocardial infarction; nephritis; HIV.	
CC		OS	Homo sapiens.	
CC		XX		
CC		PN	W09706182-A1.	
CC		XX		
CC		PD	20-FEB-1997.	
CC		PF	06-AUG-1996;	
CC		XX	96WO-US12860.	
CC		PR	08-DEC-1995;	
Sequence	SQ	PR	95US-0569749.	
Sequence	618 AA:	PR	08-AUG-1995;	95US-0512946.
Query Match	Best Local Similarity	100.0%	Score	3277; DB 18;
Matches	No. 1-3e-29;	Pred	Length	618;
Qy	1 MHTTASORLFPGPSYONIKSIMEDESTISDWTNSNMKQMYDPSCELYRNSTYSPAGV	Indels	0;	Gaps
Db	1 mhtkasqlifpgpsyqnlksimedstisldwtnsnkqmkkyfscelyrnytstfpagv	0;	0;	0;
Qy	61 PVSRSALARAGTYTSYNDVKVPCCGIMLDNWKLCDSP1QKHKLYPSCSFIONVLSA			
Db	61 pvsrslaragtyyygndvkvfcggimldnwkigdpsiqkthkqlypscfignlvsa			
Qy	121 LGGTSKNSPNSPHSPLTEHSSLFSGSYSSLSPNPLSRAVEDISSRTNPYSA			
Db	121 LGGTSKNSPNSPHSPLTEHSSLFSGSYSSLSPNPLSRAVEDISSRTNPYSA			
Qy	181 MSTEEARFLYTHMMPMLTEPSLARAGTYIGRDRYACFACGGKLSNRPBKDMSEH			
Db	181 mssteenflthythmpmltpslaragtyigpdracfcggklsnwpkdameh			
Qy	241 KHFPPNCPFFENSLTEFLRESLISUSKOTHARMTRFTMWPMPSSVPVPEQTLASAGFYVGR			
Db	241 rrfpfpctflsntlfislnisngtharmtfmwpssvpvpeqtlasagfyvgr			
Qy	301 NDUYKEGCCOGCLCWCESDPPAVENAKWFRCEPLIMKGKFGEVUEIOGRPHILQL			
Db	301 ndukcicccogcgcwesgadppvhenvakwfrceflirkmgafvaelggryphileql			
Qy	361 SSTDGEFEEDWADPPIIHCPGESSSEDAVMNTPVKAEGFNRLWYOTVOSKLLT			
Db	361 ssdtgefeedwadppiinhcpgeessedaavnntpvksllt			
Qy	421 GENKYTVNDTVSALINAEDERBEEKEKQNEEMADSLSLRINRMALFQDQTCVLPID			
Db	421 genykvtndtvsalinaedekreekekqneemadslslrinrmalfqdqtcvlpid			
Qy	481 NLKANVYINKOHDITKQTPQKRELDTIYKGNANIFKNCLEIDSTYKLF			
Db	481 nlkanvinkhqdtdlkqtpqkrelatiiykgnaanifkncleidstyklf			
Qy	541 VOKNMVYIPEDVCSLSLQLRQPERCVCMDKEVSVTFPCHLYQCACSLR			
Db	541 vdknmvypedvcslslqlrqpercvcmdkevsvfipchlyqcacslr			
Qy	601 KOPICHGKINGTVRFLS			
Db	601 KOPICHGKINGTVRFLS			
Sequence	SQ	Sequence	618 AA:	
Query Match	Best Local Similarity	100.0%	Score	3277; DB 18;
Matches	No. 1-3e-28;	Pred	Length	618;
Qy	1 MHTTASORLFPGPSYONIKSIMEDESTISDWTNSNMKQMYDPSCELYRNSTYSPAGV	Indels	0;	Gaps
Db	1 mhtkasqlifpgpsyqnlksimedstisldwtnsnkqmkkyfscelyrnytstfpagv	0;	0;	0;
Qy	61 PVSRSALARAGTYTSYNDVKVPCCGIMLDNWKLCDSP1QKHKLYPSCSFIONVLSA			
Db	61 pvsrslaragtyyygndvkvfcggimldnwkigdpsiqkthkqlypscfignlvsa			
Qy	121 LGGTSKNSPNSPHSPLTEHSSLFSGSYSSLSPNPLSRAVEDISSRTNPYSA			

Db	121	RHHPPNCPEFLENSLETURFSISNLSQLTHARMRTMWVWSSVPQPEQLASCGFYVGR 300	QY	121	lgskskntspmsfansfahsptlehsifsgs,ssisfpnpravedissstnpysa 180
Db	241	rrhpnpcfleisletlfisnlsinqtmaartfmwpsvvpqeqasagfygr 300	QY	181	MSTEARFLYHMLPLTSLSLARAGFYVIGGDRVACFCGGKLSNNEPDAMSEH 240
Db	181	mstearfltyhmpftfisplselaragfyvpggvractacggklswepdamsel 240	CC	CC	therapeutics (for modulating the expression of c- <i>IAP-1</i> , e.g., to prevent or delay infection, inflammation, or tumor formation)
Db	301	ndavkcfcggirclwesgadqpwverakwprcfliumkgqfveaqgrphilell 360	QY	361	STSDTGEENADAPPITHFGPSSSDAVMNTVWSALEGENDILVKQTVOSKLLT 420
Db	361	stsdtgeenadappihfgpsssdavmmtvwsalegenfdilvkqtvoskllt 420	QY	361	lgskskntspmsfansfahsptlehsifsgs,ssisfpnpravedissstnpysa 180
Db	421	GINYKVNDIVSALLNADEKEEFEKOEJEMSDDSLIRKRNHALFQOLTCVPLTD 480	QY	421	VDKNMYIPTEDVSGSLTEEFQRLQERETCKVMDKEVSVFPGCHLVCCQCAPSLR 600
Db	421	genykvndivsallnaedekreeekqeeemssdsllirknmalfqeqtvcipid 480	QY	421	NULKANVNIHQDIDIKOTKOPLOARELDTILVKGNAAANIKNCKEIDSTKLNLF 540
Db	481	nlkanvinkqehdikqktqpiqarelditilvkgnaaanikckieidstkylf 540	QY	481	RHHPPNCPEFLENSLETURFSISNLSQLTHARMRTMWVWSSVPQPEQLASCGFYVGR 300
Db	601	kopicrgikgtvrtfls 618	QY	601	VDKNMYIPTEDVSGSLTEEFQRLQERETCKVMDKEVSVFPGCHLVCCQCAPSLR 600
Db	601	kopicrgikgtvrtfls 618	QY	601	lgskskntspmsfansfahsptlehsifsgs,ssisfpnpravedissstnpysa 180
RESULT	3		QY	601	mstearfltyhmpftfisplselaragfyvpggvractacggklswepdamsel 240
ID	AY33998	standard; protein: 618 AA.	Db	61	pvrsrlaragfyvgrndvckfcggimldnwklqdspqkhqlypscrlqylvas 120
XX	AY33998;		Db	121	lgskskntspmsfansfahsptlehsifsgs,ssisfpnpravedissstnpysa 180
AC			Db	121	lgskskntspmsfansfahsptlehsifsgs,ssisfpnpravedissstnpysa 180
XX			Db	181	mstearfltyhmpftfisplselaragfyvpggvractacggklswepdamsel 240
XX	26-Nov-1999 (first entry)		Db	181	lgskskntspmsfansfahsptlehsifsgs,ssisfpnpravedissstnpysa 180
DE	Human cellular inhibitor of apoptosis-1 sequence.		Db	241	RHHPPNCPEFLENSLETURFSISNLSQLTHARMRTMWVWSSVPQPEQLASCGFYVGR 300
XX			Db	241	rrhpnpcfleisletlfisnlsinqtmaartfmwpsvvpqeqasagfygr 300
KW	Cellular Inhibitor of Apoptosis 1; antisense; diagnostic; therapeutic; c-IAP-1; prophylaxis; infection; inflammation; tumor formation.		Db	301	NDYKFCFCGDGURCNESGDOPWHEAKWPRCFELTRMGQEVDEIQRYPHILEOLL 360
KW	Home sapiens.		Db	301	ndavkcfcggirclwesgadqpwverakwprcfliumkgqfveaqgrphilell 360
XX	US5958772-A.		Db	361	STSDTGEENADAPPITHFGPSSSDAVMNTVWSALEGENDILVKQTVOSKLLT 420
PD	28-SEP-1999.		Db	361	stsdtgeenadappihfgpsssdavmmtvwsalegenfdilvkqtvoskllt 420
PP	03-DEC-1998;	98US-0205204.	Db	421	GINYKVNDIVSALLNADEKEEFEKOEJEMSDDSLIRKRNHALFQOLTCVPLTD 480
XX	03-DEC-1998;	98US-0205204.	Db	421	genykvndivsallnaedekreeekqeeemssdsllirknmalfqeqtvcipid 480
PR	03-DEC-1998;	98US-0205204.	Db	481	NULKANVNIHQDIDIKOTKOPLOARELDTILVKGNAAANIKNCKEIDSTKLNLF 540
XX			Db	481	nlkanvinkqehdikqktqpiqarelditilvkgnaaanikckieidstkylf 540
PA	(ISI\$-) ISIS PHARM INC.		Db	541	VDKNMYIPTEDVSGSLTEEFQRLQERETCKVMDKEVSVFPGCHLVCCQCAPSLR 600
XX			Db	541	vdksknyiptedvsgslsleclrlqeqtckvmoekavsvfpgchlvccqcapslr 600
PT	Bennett CF, Consort LM, Ackermann EJ;		Db	601	kopicrgikgtvrtfls 618
XX	WPI: 1999-561047/47.		Db	601	kopicrgikgtvrtfls 618
DR	N-PSDB; AAZ2143.		RESULT	4	
PT	Antisense compounds complementary to Cellular Inhibitor of Apoptosis-1 useful for e.g. diagnostics, therapeutics, and as research reagents.		AAM19583	1	AAW19583 standard; Protein: 618 AA.
XX			AAW19583;	2	
PT			AAW19583;	3	
XX			AAW19583;	4	
PT			AAW19583;	5	
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XX			AAW19583;	8	
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XX			AAW19583;</td		

XX  
OS Homo sapiens.  
XX  
FH Location/Qualifiers  
FT Domain 46..113 /label= BIR-1  
FT Domain 184..250 /label= BIR-2  
FT Domain 269..316 /label= BIR-3  
FT Domain 560..605 /label= Ring\_zinc\_finger  
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PN W09706255-a2.  
XX  
PT 20-FEB-1997.  
XX  
PF 05-AUG-1996; 96WO-IB01022.  
XX  
PR 22-DEC-1995; 95US-0576956.  
PR 04-AUG-1995; 95US-0511485.  
XX  
(UWOT-) UNIV OTTAWA.  
XX  
PI Baird S, Korneiluk RG, Liston P, Mackenzie AE;  
XX  
WPI; 1997-154267/14.  
DR N-PSDB; AAT70838.

PT Nucleic acid encoding an inhibitor of apoptosis polypeptide - used  
PT to inhibit apoptosis in e.g. HIV or AIDS patients, and for detection  
PT of susceptibility to apoptotic disease  
XX  
PS Claim 27: Page 75-77: 219PP; English.

CC Human XIAP, HIAp-1 and HIAp-2 and murine M-XIAP, M-HIAp-1 and  
CC M-HIAp-2 (AAW19581-86) are a new class of mammalian proteins that  
CC are inhibitors of apoptosis (IAP) and which are characterised by  
CC the presence of a ring zinc finger domain (see also AAW19587) and at  
CC least one BIR (baculovirus IAP repeat) domain (see also AAW19588).  
CC The HIAp amino acid sequences were deduced from cDNA clones (AAV70837  
CC and AAV70838) from a human liver library. IAP polypeptides can be  
expressed in host cells (in vitro or in vivo) and used in methods  
CC for treating diseases and disorders involving apoptosis, esp. in a  
CC neurodegenerative disease, a myelodysplastic syndrome or an  
CC ischaemic injury, selected from myocardial infarction, stroke,  
CC reperfusion injury, or a toxin-induced liver disease.  
XX  
Sequence 618 AA;

Query Match 99.1%; Score 3247; DB 18; Length 618;  
Best Local Similarity 95.4%; Pred. No. 7.2e-281; Matches 614; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

QY 1 MTKTASDRIIPGPQPYONIKSIMEDESTLSDWTNTNSNOKMVKDFSCSYLYRSTSTPAGV 60  
DB 1 mtktasdriipgpqpyoniksmmedstlsdwtntnsnokmvdfrscsylyrststpav 60  
DB 61 PVSERSLARGFYTGVDKVKCFCGGLMDINWLGSPICPOHKOLYPSDFCEYRSTSTPAGV 120  
DB 61 pserslarslagfytgvdkvcfcggldmdinwlgspicpohtkqyptesfslqlas 120  
QY 121 LOSTSKNTSPMRNSFAHSLSPLEHNSLSLFGSSYSLSLSPNLRAVEDISSSRNPYSA 180  
DB 121 lgtaktspsmrafahsplensifsgssllppnpinsravedissstnpysa 180  
QY 181 MSTEEARFLTYHMLPLTLSPELARAGFVYIGPGDRVACFACGGGLSNWEPKDAMSEH 240  
DB 181 msteearfltyhmlpltspelaragfvyigpgdrvacfacggkliswepkdamseh 240  
QY 241 RRHFPNCPPFLENSLETLRFSISLNLSMOTHARMRTFMWPPSSVPQEQLASAGFYVGR 300

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RESULT 5  
ID AAW69296  
XX AAW69296 standard; Protein: 618 AA.  
AC AAW69296;  
XX  
DT 13-NOV-1998 (first entry)  
DE Human HIAp-2 protein.  
XX  
KW Inhibitor of apoptosis protein; apoptosis enhancer; NAIP polypeptide;  
KW proliferative disease; IAP; therapy; cancer; human; HIAp-2 protein.  
XX  
OS Homo sapiens.  
XX  
PN W09835693-A2.  
XX  
PD 20-AUG-1998.  
XX  
PR 13-FEB-1998; 96WO-IB00781.  
XX  
PR 13-FEB-1997; 97US-0800929.  
XX  
(UWOT-) UNIV OTTAWA.  
XX  
PI Baird S, Korneiluk R, Liston P, Mackenzie AE, Pratt C;  
XX  
PR WPI; 1998-467154/40.  
DR N-PSDB; AAV55040.  
XX  
PS Inducing apoptosis in proliferative mammalian cells with inhibitor  
PT of IAP or NAIP polypeptide - also methods for prognosis based on  
PT presence of IAP and NAIP, specifically applied to cancers involving  
PT p53 mutations  
XX  
PS Disclosure; Fig 3; 147PP; English.  
XX  
CC This sequence is the human HIAp-2 protein, which is a inhibitor of  
apoptosis protein (IAP), and can be used in the method of the invention.  
CC The method is for enhancing apoptosis in cells from a mammal with  
CC proliferative disease by treatment with a compound that inhibits  
CC biological activity of an IAP or NAIP polypeptide. The inhibitory  
CC compounds are used to treat proliferative diseases, specially cancers of  
CC ovary, breast, pancreas, lymph nodes, skin, blood, lung, brain, kidney,

CC	liver, nasopharynx, thyroid, central nervous system, prostate, colon, rectum, cervix or endometrium, particularly to increase their sensitivity to chemotherapeutic agents. High levels of the IAP or NATE proteins are detected in many cancers and are associated with poor prognosis, resistance to chemotherapeutic agents and mutations in p53 (it is suggested that wild-type p53 suppresses transcription of the IAP or NATE genes). Transgenic animals are used for testing the effects of antisense oligonucleotides and for screening for the inhibitors.	XX	OS
CC		XX	MUS musculus.
CC		XX	W0706-82-A1.
CC		XX	PN
CC		XX	20-FEB-1997.
CC		PD	
CC		PF	06-AUG-1996; 96WO-US12860.
XX	Sequence 618 AA;	XX	PR 08-DEC-1995; 95US-056749.
XX		XX	PR 08-AUG-1995; 95US-0512946.
PA		PA	(TULA-) TULARIK INC.
PI	Goddet DV, Rethe M;	PI	
XX		XX	WPI; 1997-154209/14.
DR	N-PSDB; AAW61592.	DR	
XX		XX	Nucleic acids encoding cellular inhibitor of apoptosis proteins -
PT	useful for apoptosis regulation in cells to reduce or increase	PT	apoptosis and for pharmacological screening
XX		XX	Disclosure: Page 28-29; 35pp; English.
CC	The human cellular inhibitor of apoptosis proteins (c-IAP1/2 ~	CC	
CC	AAW61590/61591) comprise a series of defined structural domain repeats and/or a RING finger domain, in particular, at least two of	CC	
CC	a first domain repeat (AAW13547 or AAW13548), a second domain repeat (AAW13549 or AAW13550), and a third domain repeat (AAW13551 or AAW13552 ~	CC	
CC	and/or a RING finger domain (AAW13553 or AAW13554), or a consensus sequences derived from these human genes	CC	
CC	The nucleic acid is used for recombinant prod. of human cellular inhibitor of apoptosis protein which modulates apoptosis	CC	
CC	regulation. The nucleic acids are useful in therapies where increased cell-specific apoptosis is desired, e.g. in restenosis, inflammatory diseases, states, myocardial infarction, glomerular nephritis, transplant rejection and infectious diseases, e.g. HIV. They can also be used in conditions requiring a reduction in apoptosis.	CC	
SQ	XX	SQ	
Sequence 612 AA;		Sequence 612 AA;	
Query Match 83.2%; Score 2728; DB 18; Length 612;		Query Match 83.4%; Score 2728; DB 18; Length 612;	
Best Local Similarity 83.4%; Pred. No. 1 4e-239; Matches 517; Conservative 45; Mismatches 48; Indels 10; Gaps 40		Best Local Similarity 83.4%; Pred. No. 1 4e-239; Matches 517; Conservative 45; Mismatches 48; Indels 10; Gaps 40	
Db		Db	
QY 1 MHKTASORLFPSPYNTKIMMEDSTILSDWNTNSNKQMKYDFSCELYRNMSTYPAGV 60		QY 1 MHKTASORLFPSPYNTKIMMEDSTILSDWNTNSNKQMKYDFSCELYRNMSTYPAGV 60	
481 nllkanvinkqhdnlkqktqlpinqareldttlwkgnaanifknckelstlyknf 540		481 nllkanvinkqhdnlkqktqlpinqareldttlwkgnaanifknckelstlyknf 540	
QY 541 VDKNNKYIPTEDWSGLSLEBOLRRIQEERVKYCKMDKVSFVVFPGHLYWCQCAPSR 600		QY 541 VDKNNKYIPTEDWSGLSLEBOLRRIQEERVKYCKMDKVSFVVFPGHLYWCQCAPSR 600	
Db		Db	
QY 601 KCPICRGIGTKGTRTEFS 618		QY 601 KCPICRGIGTKGTRTEFS 618	
Db		Db	
601 kcpicrgigtkgtrtfs 618		601 kcpicrgigtkgtrtfs 618	
RESULT 6		QY 181 MSFEEARLTTHWMPFLPFSSELARAFYVGPGRVACRAGKLSSWEPDAMSEH 240	
AAW13555		Db 174 mstearlfytwmpflspaelarafyvgpgrvacractggklsswepdams 233	
ID AAW13555 standard; Protein: 612 AA.		QY 241 RRHPPNCPLFLENLSLETIPLRSISNI-SMOTHAAARTRTEMWMPSSVPQPEOALASGFYVGR 300	
AC AAW13555;		Db 234 rrhphppnfplflelnsletiplrsisni-smothaaartrtemwmpssvpqpeoalasgfyydr 293	
XX		Db 301 NDDVKCFCGGGLRCRWESEGDDPWHEAKHVKPCEPLIRMKCOEFDIECRYHLLBOLL 360	
DE 22-JUL-1997 (first entry)		Db 294 nddkfcfcggllrcwepgadpwihakwfpccflirkmgkgfvdelyaryphileql 353	
DE Murine c-IAP.		QY 361 STSDTGGENADP-PIHQPGESESSEDAVMINTPVKSALEMENFRPLVLUKTVQSKIL 418	
IAP; inhibitor; apoptosis; RING finger domain; restinosis;			
KW myocardial infarction; nephritis; HIV.			

SO	Sequence	612 AA:
Db	354	stadtpeenadptevhpgc-ssdvvnmstpvkalengfslvrlvqrgil 412
Qy	419	TGNYKVNNDVSAALNADEKEKEKQEMADSILRKNRMALFOOLCULP 478
Db	413	atgenyrtvndivsvlinaederreekerqteamasgdsilkrnmalqqlhwpli 472
Matches	516	Best Local Similarity 83.2%; Pred. No. 3; 3e-239; Conservative 46; Mislabels 48; Index 10; Gaps
Qy	479	LDNLUKANVINKOEDIKOTQPLQRELDTIUVKGNAAKFNCLELDSTYLN 538
Db	473	:     :     :     :     :     :     :     :     :     : Idnleasvitqkendidrkktqpliqareldtivkgnaanifksiksdlyen 532
Qy	539	LFVKNMAYIPEDVGSLSEQRRLQBERCKVNDKEVSUFPCHLWQCSCAPS 598
Db	533	: lfvekmnyipedvgslseqrllqareldtckvndkevsifipeghlvqcscaps 592
Qy	599	LRKSPICRGIGKTVRFLS 618
Db	593	lrkpicrgtikgtvtfls 612
RESULT	7	
ID	AAW69299	standard: Protein; 612 AA.
XX	AAW69299	
AC	AAW69299:	
XX	DT	13-nov-1998 (first entry)
XX	DE	Murine HIAp-2 protein.
XX	KW	Inhibitor of apoptosis protein; apoptosis enhancer; NAIP polypeptide; proliferative disease; IAP; therapy; cancer; mouse; HIAp-2 protein.
XX	OS	Mus sp.
XX	DE	W09825693-A2.
XX	PD	20-AUG-1998.
XX	PF	13-FEB-1998;
PR	13-FEB-1997;	97US-0800929.
XX	PA	(UYOT-) UNIV OTTAWA.
PI	Baird S, Korneluk R, Liston P, Mackenzie AE, Pratt C;	
PI	Tsang B;	
XX	DR	WPI; 1998-467164/40.
PT	N-PSB; AAV55043,	
PT	Inducing apoptosis in proliferative mammalian cells with inhibitor of IAP or NAIP polypeptide - also methods for prognosis based on presence of IAP and NAIP, specifically applied to cancers involving p53 mutations	
XX	PS	Disclosure: Fig 6: 147pp; English.
CC	This sequence is the murine HIAp-2 protein, which is a inhibitor of apoptosis protein (IAP), and can be used in the method of the invention.	
CC	The method is for enhancing apoptosis in cells from a mammal with proliferative disease by treatment with a compound that inhibits biological activity of an IAP or NAIP polypeptide. The inhibitory compounds are used to treat proliferative diseases, specially cancers of ovary, breast, pancreas, lymph nodes, skin, blood, lung, brain, kidney, liver, nasopharynx, thyroid, central nervous system, prostate, colon, rectum, cervix or endometrium, particularly to increase their sensitivity to chemotherapeutic agents. High levels of the IAP or NAIP detected in many cancers and are associated with poor prognosis, suggested that wild-type p53 suppresses transcription of the IAP or NAIP genes. Transgenic animals are used for testing the effects of antisense oligonucleotides and for screening for the inhibitors.	
RESULT	8	
ID	AAW19586	standard: Protein; 591 AA.
XX	AAW19586	
AC	AAW19586:	
XX	DT	02-SEP-1997 (first entry)
DE	Mouse apoptosis inhibitor M-HIAp-2.	
XX	Apoptosis inhibitor; M-HIAp-2; HIV; AIDS; neurodegeneration; myelodysplastic syndrome; ischaemia; myocardial infarction; stroke; reperfusion injury; toxin-induced liver disease; gene therapy; diagnosis.	
XX	OS	Mus sp.
XX	FH	Key Location/Qualifiers
FT	Domain	Label= BIR-1





Db	421	Inadeezeererateekesndlirknrmalfghitecvipidsiltagineqehd	480	CC exemplification of the present invention.
Qy	435	IIRKOTQIPLQARLITILVKNAANIFRNKEIDSTLYKNEFDYMKVITPEOVS	554	XX sequence 604 AA;
Db	481	VIKQKQTSGAREELDTILVKNIAATVFNSIIGEAEAVYIHLVQDQKIPDEVS	540	Query Match 71.8%; Score 2353; DB 20; Length 604;
Qy	555	GISLEEDQRRLQERTRCKVMDENSVWFGCHIWCOCAPSIRKCPICRIGKTVR	614	Best Local Similarity 72.8%; Pred. No. 2.1e-205; Matches 440; Conservative 71; Mismatches 87; Indels 6; Gaps 5;
Db	541	dlpyeqgirrlqertrckvmdenkvsvifpcghivckdcapsirkpicristikgtvr	600	Db 601 tfis 604
Qy	615	TFLS 618	20 SMEDSITLSWNTNS-NKOKMWDGFSCYLXRMYSSTPAPVPSERSLARAGFYRTGVN	78
Db	601	tfis 604	2 nivensifslsmi'santrellydsclcyrmstypstipgvverskaragfyyrgvn	61
RESULT	11		Qy 79 DKYKCFCCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	135
AY52703			Db 62 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	120
ID	AY52703	standard; Protein; 604 AA;	Db 63 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	115
XX			Db 64 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	110
AC	AY52703:		Db 65 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	105
XX			Db 66 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	100
DT	26-JAN-2000	(first entry)	Db 67 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	95
DE			Db 68 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	90
XX		Human cellular inhibitor of apoptosis-2 protein.	Db 69 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	85
XX			Db 70 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	80
KW	Identification; genetic target; gene modulation; human;	Db 71 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	75	
KW	antisense oligonucleotide; phosphorothioate; target validation;	Db 72 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	70	
KW	nucleotide sequence-based technology; antisense drug discovery.	Db 73 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	65	
OS	Homo sapiens.	Db 74 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	60	
XX		Db 75 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	55	
PN	W0953101-A1.	Db 76 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	50	
XX		Db 77 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	45	
PD	21-OCT-1999.	Db 78 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	40	
XX		Db 79 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	35	
PF	13-APR-1999;	Db 80 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	30	
XX		Db 81 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	25	
PR	13-APR-1998;	Db 82 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	20	
PR	28-APR-1998;	Db 83 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	15	
XX		Db 84 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	10	
PA	(ISIS-) ISIS PHARM INC.	Db 85 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	5	
XX		Db 86 DKFCFCGMLWKNKLGSPTKQHOLYVSCSTONIVSA-SLUSTSNTS--MRNSF	0	
PI	Cowpert LM, Baker BF, McNeil J, Freier SM, Sasmor HM, Brooks DG;	Qy 315 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	314	
PI	Ohasi C, Wyatt JR, Borchers AH, Vickers TA,	Db 301 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	300	
PR	WPI; 1999-620446/53.	Db 315 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	290	
DR	N-PSDB; AAZ11005.	Db 316 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	280	
XX		Db 317 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	270	
PT	Identifying compounds which modulate expression of nucleic acids; used to provide compounds having defined physical, chemical or biactive properties, e.g. antisense activity	Db 318 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	260	
PT	Example 20; Page 197-202; 264PP; English.	Db 319 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	250	
XX		Db 320 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	240	
A	A method has been developed of defining a set of compounds that modulate the expression of a target nucleic acid (tRNA) sequence via a binding of the compounds with the tRNA sequence. The method comprises generating a library of virtual compounds in silico according to defined criteria, and evaluating in silico the binding of the virtual compounds with the tRNA according to defined criteria. Also described are: (1) a method of defining a set of oligonucleotides (ONs) that modulate the expression of a tRNA sequence via binding of the ONs with the tRNA sequence comprising generating a library of virtual compounds in silico according to defined criteria, and evaluating in silico the binding of the virtual ONs with the tRNA according to defined criteria; and (2) a method of defining a set of compounds that modulate the expression of a tRNA sequence via binding of the compounds with the tRNA. The methods can be used for the generation and identification of synthetic compounds having defined physical, chemical or biactive properties. Information gathered from assays of such compounds are tractable to a variety of nucleotide sequence-based technologies, e.g. antisense drug discovery and target validation. AAZ11005 to AAZ41120, and AAY52701 to AAY52706, represent sequences used in the	Db 321 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	230	
XX		Db 322 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	220	
AC	AY33997 standard; Protein; 604 AA.	Db 323 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	210	
AC	AY33997;	Db 324 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	200	
XX		Db 325 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	190	
DT	26-NOV-1999 (first entry)	Db 326 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	180	
DE	Human cellular inhibitor of apoptosis-2 sequence.	Db 327 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	170	
XX		Db 328 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	160	
KW	Cellular Inhibitor of Apoptosis-2; antisense; diagnostic; therapeutic; c-IAP-2; prophylaxis; injection; inflammation; tumor formation.	Db 329 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	150	
XX		Db 330 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	140	
OS	Homo sapiens.	Db 331 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	130	
PN	USS958771-A.	Db 332 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	120	
PD	28-SEP-1999.	Db 333 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	110	
XX		Db 334 QWEQDDPWVAKAHPFQLKQVPSVQFQSLASAGFYVVRNDYVKCPCOGLR	100	

PF	03-DEC-1998;	98US-0205144.	Db	601	 tfls 604
PR	03-DEC-1998;	98US-0205144.			
XX					
PA	(ISIS-)	ISIS PHARM INC.			
XX					
PI	Bennett CF,	Covort LM,	Ackermann EJ;		
XX					
DR	WPI: 1999-56104647.				
DR	N-PSUB; AM22095.				
XX					
PT	Anti-sense compounds complementary to Cellular Inhibitor of Apoptosis -2 useful for e.g. diagnostics, therapeutics, and as research reagents -				
PT	Example 13; Columns 45-50; 33PP; English.				
PS					
XX	The invention provides antisense compounds of 8-30 nucleotides that inhibit the expression of human Cellular Inhibitor of Apoptosis -2 (c-IAP-2). The antisense compounds may be used for diagnostics, therapeutics (for modulating the expression of c-IAP-2), prophylaxis (e.g. to prevent or delay infection, inflammation, or tumor formation), as research reagents (e.g. to distinguish between members of a biological pathway) and in kits. The present sequence represents the human cellular inhibitor of apoptosis-2.				
CC					
CC	inhibit the expression of human Cellular Inhibitor of Apoptosis -2 (c-IAP-2). The antisense compounds may be used for diagnostics, therapeutics (for modulating the expression of c-IAP-2), prophylaxis (e.g. to prevent or delay infection, inflammation, or tumor formation), as research reagents (e.g. to distinguish between members of a biological pathway) and in kits. The present sequence represents the human cellular inhibitor of apoptosis-2.				
XX					
SQ	Sequence 604 AA:				
	Query Match 71.8%; Score 2353; DB 20; Length 604; Matches 440; Conservative 71; Mismatches 67; Indels 6; Gaps 5;				
QY	20 SIMDOSTLISPMNTNS-NKOKMKYDFSCELLMRMSYSPFPACVPSERSLARGAFYTGVN 78	XX	RESULT 13		
Db	2 nivensfislnkmsantefydyiscalrymststfpagyperslsargfytgyn 61	XX	ID AAW19582 standard; Protein; 604 AA.		
QY	79 DKIKRCGICGLMDWKLGDSRQHKQLPSCFQIQLVSA-SGCTSKNTS-MRNSF 135	XX	AAW19582;		
Db	62 dkycfcfcgqmlndnkrkgaspstekhklytscrivgslnsnvnleatsqptfssvns- 120	XX	XX		
QY	136 AHSUPLTEHESLGSSSSLPNPNRSRVEIRRNTNYSAMSTEAEFLTYHMP 195	XX	DE Human apoptosis Inhibitor IAP-1.		
Db	121 thalipptengsfqgsrspspnspnnsntqngtsalmrassrhcamnenanatltqtw 180	XX	KW Apoptosis inhibitor; IAP-1; HIV; AIDS; neurodegeneration; stroke; myocardial infarction; ischemia; myocardial infarction; stroke; reperfusion injury; toxin induced liver disease; gene therapy; diagnosis.		
QY	196 LTPFLPSSEALARAGFVYIGSDRYVACACGGKLNSWERPDAMSEHRRHPNPQFLRNL- 254	XX	XX		
Db	181 1tfisplakagfyispgdrvacfacggklswepkdnhansgehlrltpkpfenqlq 240	XX	OS Homo sapiens.		
QY	255 ETLFPSFSLSMOTWAHRRTPEMYWSSVYVOPBOLASAGGYVGGRNDVKFCFCGGLR 314	XX	FT Key		
Db	241 durytyn1smqtbafktfinwpsvsvnpeqlsagsqyygynsdavkccgggr 300	XX	FT Domain		
QY	315 CWESGDOPWYHAKWPKREFLIRMKQEVDETOGRYPHILEQILSTSDTGRENADPP 374	XX	FT Domain		
Db	301 cwsqsgdpwqphakwfkpcrcyylirkqgefrqasyphileqiltsdsgdenass 360	XX	FT Domain		
QY	375 IHRGPESSEDADAVMMTIPVVKSALEMGRNPLVYKOTVOSKLTGUTGENKYVNDVSL 434	XX	FT Domain		
Db	361 ihrepqehedahammtdpvinavaengrsrslvkgvqklatgenyrvindvl 420	XX	FT Domain		
QY	435 LNNEDEERREKEKQEAEMASDLSIRKRMALFOOLTCVLPIDLNLUKANVNOEHO 494	XX	PS Claim 27; Page 72-74; 219PP; English.		
Db	421 knedderrecrerateekeskodllirkirmalfqhtcpilidsltaginegend 480	XX	CC Nucleic acid encoding an inhibitor of apoptosis polypeptide - used to inhibit apoptosis in e.g. HIV or AIDS patients, and for detection of susceptibility to apoptotic disease		
QY	495 TNIKTKTPIQGARELIDTYLVKNAANTRKCIKEDSTYTKNFDKNMKTPEDS 554	XX	CC Human XIAP, IAP-1 and IAP-2 and murine M-XIAP, M-IAP-1 and M-IAP-2 (AAW19581-86) are a new class of mammalian proteins that are inhibitors of apoptosis (IAP) and which are characterised by the presence of a ring zinc finger domain (see also AAW15877 and at least one BIR (baculovirus IAP repeat) domain (see also AAW15888).		
Db	481 vikqkrtqsiqarelidtlvkqntaatvrnsrqeaevahfbfgdkiyipeds 510	XX	CC The IAP amino acid sequences were deduced from cDNA clones (AAW10838) and AAW10838) from a human liver library. IAP polypeptides can be expressed in host cells (in vitro or in vivo) and used in methods for treating diseases and disorders involving apoptosis, esp. in a human diagnosed as HIV positive or as having AIDS, a neurodegenerative disease, a myelodysplastic syndrome or an		
QY	555 GUSLEGLQLRQEERTCWCMDKRENSVWVPCFGHLVQCSEGAPSRLRKPCICGIGIKGTVR 614	XX	CC ischemic injury, selected from myocardial infarction, stroke, reperfusion injury, or a toxin-induced liver disease.		
Db	541 dlivederrirrqeertckwmckavaiifpcchlvcrkdcaprkpcigcstgtr 600	XX	CC Sequence 604 AA;		
QY	615 TFLS 618	Query Match 71.2%; Score 2332; DB 18; Length 604; Matches 435; Conservative 72; Mismatches 92; Indels 4; Gaps 4;			

OY	20	SIMEDSTILSDWNTS-NKOKMYDFSCELYRMSYSTFPAGVPSERSLARAGFYVTGVN	78	X	WPI: 1998-467164/40.			
Db	2	nivensifsnlnksantfeikydsclsclyrmstystfpagvpserslarsaqfytgvn	61	DR	N-PSD; AAV5/039.			
OY	79	DKVKCFCGGLMDWKLGDSPIQKQLYPSFSPIQIIVLSA-SIGTSKNTSPMRNSFA-	136	XX				
Db	62	dkvkfcgcgmlmnlwkqkdgstekkklypsctfvgslsvnnleatsqptipssytha	121	PT	Inducing apoptosis in proliferative mammalian cells with inhibitor of IAP or NAIP polypeptide - also methods for prognosis based on presence of IAP and NAIP, specifically applied to cancers involving p53 mutations			
OY	137	HSLSPLELISSLSGSISLSSPNPIRSRAVEDISSRSPNRYSYMSSTEARLTYHWPPL	196	XX				
Db	122	hsllpgtensgyfrgysnspsnprsnrafnqsfslmrssypcmmnenaarltftqtwpl	181	PS	Disclosure: Fig 2, 147pp; English.			
OY	197	TPLSELARAGYYTGPGRDVAFACGKLSWEPDDAMSEIRHRHNPCEFLS-E	255	XX				
Db	182	tlispdtlrragfyy-lpgdavaccggklswepkdnamselrhpkpfiengqd	241	CC	This sequence is the human HAP-1 protein, which is a inhibitor of apoptosis protein (IAP), and can be used in the method of the invention. The method is for enhancing apoptosis in cells from a mammal with proliferative disease by treatment with a compound that inhibits biological activity of an IAP or NAIP polypeptide. The inhibitory compounds are used to treat proliferative diseases, especially cancers of ovary, breast, pancreas, lymph nodes, skin, blood, lung, brain, kidney, liver, nasopharynx, thyroid, central nervous system, prostate, colon, rectum, cervix or endometrium, particularly to increase their sensitivity to chemotherapeutic agents. High levels of the IAP or NAIP proteins are detected in many cancers and are associated with poor prognosis, resistance to chemotherapeutic agents and mutations in p53 (it is suggested that wild-type p53 suppresses transcription of the IAP or NAIP genes). Transgenic animals are used for testing the effects of antisense CC			
OY	302	wsgdpgwqhgkawfpcryirkgfegirqgasyphileqilistsdpdenessi	361	CC	oligonucleotides and for screening for the inhibitors.			
OY	376	IHFGECESSEDA VAMMPVVKSALEMGENRDLVWQVSKLUTGEMKTYNDIVSALL	435	CC				
Db	362	ihlegpedsediammptpvinavemgtsrslvkqvlqkrlatgenyrlvdvldl	421	XX				
OY	436	NAEDERREKEKAEMASDLSLIRKRMALFOOLTPVAPLIDNLKANVINKHEDI	495	SO	Sequence 604 AA.			
Db	422	naedreereererateekeskndllirkrmalfqhtcvpiplsdiltaginenehdv	481	Query Match 71.2%; Score 2332; DB 19; length 604;				
OY	496	IKOKTQIPLARELDITLVKGNAANIFKNCKLEIDSTLUKNFENVKMKTPTDVSG	555	Best Local Similarity 72.1%; Pred. No. 1; 7e-203; Matches 92; Indels 4; Gaps 4;				
Db	482	ikqktctsqaralidtlvlgqntavtrnsqeaavlyhefqdqkypredad	541	Matches 435; Conservative 72; Mismatches 92; Indels 4; Gaps 4;				
OY	556	LSLEQOLRRLQEERTCKVCMOKEVSVFPCGHUWCOCAPSIRKCPICRGKCTVRT	615	Query Match 71.2%; Score 2332; DB 19; length 604;				
Db	542	lpveeqrripeertckvcmokevsvifpcghlvcvcapsirkcpicrtkvt	601	DB 2 nivensifsnlnksantfeikydsclsclyrmstystfpagvpserslarsaqfytgvn 61				
OY	616	FUS 618	Db 2 nivensifsnlnksantfeikydsclsclyrmstystfpagvpserslarsaqfytgvn 61					
Db	602	f1s 604	Db 2 nivensifsnlnksantfeikydsclsclyrmstystfpagvpserslarsaqfytgvn 61					
<b>RESULT 14</b>								
ID	AAM69295	standard; Protein: 604 AA.	OY	20	SIMEDSTILSDWNTS-NKOKMYDFSCELYRMSYSTFPAGVPSERSLARAGFYVTGVN	78	X	WPI: 1998-467164/40.
AC	AAM69295;		OY	79	DKVKCFCGGLMDWKLGDSPIQKQLYPSFSPIQIIVLSA-SIGTSKNTSPMRNSFA-	136	DR	N-PSD; AAV5/039.
XX			Db	62	dkvkfcgcgmlmnlwkqkdgstekkklypsctfvgslsvnnleatsqptipssytha	121	PT	Inducing apoptosis in proliferative mammalian cells with inhibitor of IAP or NAIP polypeptide - also methods for prognosis based on presence of IAP and NAIP, specifically applied to cancers involving p53 mutations
OY	137	HSLSPLELISSLSGSISLSSPNPIRSRAVEDISSRSPNRYSYMSSTEARLTYHWPPL	196	XX				
Db	122	hsllpgtensgyfrgysnspsnprsnrafnqsfslmrssypcmmnenaarltftqtwpl	181	PS				
OY	197	TPLSELARAGYYTGPGRDVAFACGKLSWEPDDAMSEIRHRHNPCEFLS-E	255	XX				
Db	182	tlispdtlrragfyy-lpgdavaccggklswepkdnamselrhpkpfiengqd	241	CC				
OY	302	wsgdpgwqhgkawfpcryirkgfegirqgasyphileqilistsdpdenessi	361	CC				
OY	376	IHFGECESSEDA VAMMPVVKSALEMGENRDLVWQVSKLUTGEMKTYNDIVSALL	435	CC				
Db	362	ihlegpedsediammptpvinavemgtsrslvkqvlqkrlatgenyrlvdvldl	421	XX				
OY	436	NAEDERREKEKAEMASDLSLIRKRMALFOOLTPVAPLIDNLKANVINKHEDI	495	SO				
Db	422	naedreereererateekeskndllirkrmalfqhtcvpiplsdiltaginenehdv	481	Query Match 71.2%; Score 2332; DB 19; length 604;				
OY	496	IKOKTQIPLARELDITLVKGNAANIFKNCKLEIDSTLUKNFENVKMKTPTDVSG	555	Best Local Similarity 72.1%; Pred. No. 1; 7e-203; Matches 92; Indels 4; Gaps 4;				
Db	482	ikqktctsqaralidtlvlgqntavtrnsqeaavlyhefqdqkypredad	541	Matches 435; Conservative 72; Mismatches 92; Indels 4; Gaps 4;				
OY	556	LSLEQOLRRLQEERTCKVCMOKEVSVFPCGHUWCOCAPSIRKCPICRGKCTVRT	615	Query Match 71.2%; Score 2332; DB 19; length 604;				
Db	542	lpveeqrripeertckvcmokevsvifpcghlvcvcapsirkcpicrtkvt	601	DB 2 nivensifsnlnksantfeikydsclsclyrmstystfpagvpserslarsaqfytgvn 61				

Qy 616 FLS 618  
Db 602 f1s 604

RESULT 15

ID AAW04583 standard; Protein; 438 AA.  
XX  
AC AAW04583:  
XX DT 07-FEB-1997 (first entry)  
XX DE Human inhibitor of apoptosis gene 1.  
XX Inhibitor of apoptosis 1; hIAP-1; degenerative disease;  
KW rheumatoid arthritis; septic shock; antiviral; trauma; stroke;  
KW cell death; oncogenesis; cancer; diagnosis; therapy.  
XX OS Homo sapiens.  
XX PN W09635703-A1.  
XX PD 14-NOV-1996.  
XX PF 11-MAY-1995; 95W0-US05922.  
XX PR 11-MAY-1995; 95W0-US05922.  
XX PA (HUMA-) HUMAN GENOME SCI INC.  
XX PI He WM, Hudson PL, Rosen CA;  
XX DR WPI; 1996-518608/51.  
DR N-PADB: AAT43709.

XX PT Polynucleotide encoding human inhibitor of apoptosis gene 1 - useful  
PT for treating degenerative diseases, as antiviral defence mechanism  
XX and preventing cell death during trauma and strokes

PS Claim 1; Page 40-41; 53pp; English.

XX Human inhibitor of apoptosis 1 (hIAP-1) (AAW04583) is a protein,  
CC useful for treating degenerative diseases, rheumatoid arthritis,  
CC septic shock, as an antiviral defence mechanism, and for  
CC preventing cell death during strokes or trauma. Its amino acid  
CC sequence was deduced from a cDNA clone (AAT43709) that can be obt'd.  
CC from human Jurkat cell lines or human osteoclastoma stromal cell  
CC lines. Recombinant hIAP-1 can be produced in prokaryotic or  
CC eukaryotic host cells, or expressed in vivo. It can also be used  
CC to screen for modulators of hIAP-1 activity.  
XX Sequence 438 AA;

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Query Match 71.0%; Score 2326; DB 17; Length 438;  
Best Local Similarity 100.0%; Pred. No. 3 Ge 203; Matches 438; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 181 MSTEREARFLYHMMPLFLSSELARAGYYIGPGDVAFCAGGRLSNWEPDDAMSEH 240  
Db 1 mstteearfltyhmwplflsselaragyyigpgdvafcagklsiwepddamseh 60  
Qy 241 RRHFPNCPELPLENSLETIRFSISNLNQTHAARNRHTFMWPKSSPVQPEOGLASHGFFYGR 300  
Db 61 rrhfpncpelelplensletirfsisnlnqthaaarnrhtfmwpssvyqpeqlasgffygr 120  
Qy 301 NODVKCFCDCGURCWESGGDPWELAKKEPREFLIRMKQCFVDEIQRGVPHLLEQL 360  
Db 121 nadavkfccggircwsgggdpwvhakwprcfelirmkggefvde1qgrphllqil 180  
Qy 361 SNSDTGEENADPPIRGPESSEDAYWMNTPVVSALEMGMFRDLYVKQTQSKILTT 420

Db 181 ssdttqeenadpplihgpgssedavmntrpvksalemgfnzdlvqtvqskltt 240  
Qy 421 GEMVKVNDYVSLINADEKEEKEKQAEEMSDSYLRKRNRAUCQQTCVPLID 480  
Db 241 genktvndlvsallnaodekreekekqaeemsdslirkntmalfqkltcvplid 300  
Qy 481 NLKANWINKOEHDIKOTPLORELUDITIVKGNAAANIEKUCLKIDSPYKULF 540  
Db 301 nirkavinknsndikqktpqarelditivkgnhaanfnckickeidstlyklf 360  
Qy 541 VDNMKVTPEDVSLSLEQRIOLPERICKVMDKEVSVVPIFGHUVCOCAPSLR 600  
Db 361 vdkmkvtpedvsllsqleqqrlqetckvmdkevvfipoghlwvcqcapslr 420  
Qy 601 KPCIRGAIKGTVRFLS 618  
Db 421 kpcirgaikgtvrtfls 438

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